(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau



(43) International Publication Date 21 October 2004 (21.10.2004)

PCT

(10) International Publication Number WO 2004/089979 A2

(51) International Patent Classification7: A61K 39/02, C12N 15/31, C07K 16/12 C07K 14/195.

(21) International Application Number:

PCT/IB2004/001440

(22) International Filing Date:

8 April 2004 (08.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0308198.1

9 April 2003 (09.04.2003)

(71) Applicant (for all designated States except US): CHIRON SRL [IT/IT]; Via Fiorentina 1, I-53100 Siena (IT).

(72) Inventor; and

(75) Inventor/Applicant (for US only): MASIGNANI, Vega [IT/IT]; Chiron Srl, Via Fiorentina 1, I-53100 Siena (IT).

(74) Agent: Marshall, Cameron, John; Carpmaels & Ransford, 43-45 Bloomsbury Square, London WC1A 2RA (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ADP-RIBOSYLATING TOXIN FROM LISTERIA MONOCYTOGENES

E. coli	LT	K LYR ADSRPPD	LYD H ARGTQ	YDDG YVSTS LSLRS A	SPHPYEQEVSALGGI
N. menin	gitidis	FLYRGISCOOD	vy a H qie t g	YDGCYISTTTDKEIA	PENPNER VTIRAED
S. coeli	color	TLYRSDSRGPQVVF	eegf H akdv q ngqydvekyvlv	nqp s p yvStS ydHdly	hkwadQvëvafp ggi
M. pneum	oniae	FVYRVDLRSPE	FFEHILSTN	GRSYFISTSETPTAA	tsfay Qr\u00e4w ftd g pi
S. typhi		FVYRVDSTPPD		SCSGGSSDSRY_IATT	tmmrlQrExvstl s i
S. parat	yphi	FVYR VDSTP PD		SCSGGSSDSRY1ATT	tmmrlQr\vstl si
S. pyoge	nes	vvyR yvyetfl		TKHS FMSTT ALKNGA	SAVPSEV/LLFPRGC
L. monoc	ytogenes	ily R gt s seil		eekg fmStT tisn <u>o</u> t	setpe Ea Svl f ni g q

(57) Abstract: An ADP-ribosylating toxin from Listeria monocytogenes is disclosed, together with mutant toxins and uses therefor. There is only a low level of sequence identity between this toxin and known toxins such as the iota toxin from Clostridium perfringens.

